

I (WE) CLAIM:

1. A system for identifying unauthorized use of a transducer which is detachably connectable with an imaging device, the system comprising:
 - an electronic identifier associated with the transducer; and
 - a processor operable to generate a security signal in response to the electronic identifier.
2. The system of Claim 1 wherein the electronic identifier comprises an identifier distinguishing the transducer from other transducers of a same type and manufacturer.
3. The system of Claim 1 wherein the electronic identifier comprises a memory storing a code.
4. The system of Claim 1 wherein the processor comprises an encoder within the imaging device.
5. The system of Claim 1 further comprising:
 - a memory operable to store a list of transducer identifiers including the electronic identifier; and
 - a connector operable to electronically connect the electronic identifier with the processor;
 - wherein the processor is operable to search for the electronic identifier within the memory.
6. The system of Claim 5 further comprising:
 - an input on the imaging device, the input operable to receive the transducer identifiers.

7. The system of Claim 1 wherein the security signal corresponds to one of a statement of ownership, a warning, prevention of use and combinations thereof.
8. The system of Claim 1 further comprising:
 - a memory of the imaging device operable to store a code;
 - wherein the processor is operable to allow use of the transducer with the imaging system in response to a match of the code and the electronic identifier and is operable to generate the security signal in response to a mismatch of the codes and the electronic identifier.
9. The system of Claim 8 further comprising:
 - an input on the imaging device, the input operable to receive the code;
 - wherein the processor is operable to generate a request for the code in response to connection of the transducer with the imaging device.
10. The system of Claim 1 further comprising:
 - an adaptor connectable between the transducer and the imaging device, the adaptor having a memory operable to store security information;
 - wherein the processor is operable to allow use of the transducer with the imaging system in response to a match of the security information and the electronic identifier and is operable to generate the security signal in response to a mismatch of the security information and the electronic identifier.
11. The system of Claim 1 wherein the electronic identifier comprises a radio frequency tag.
12. The system of Claim 11 wherein the processor is operable to cause the imaging system to cease driving the transducer in response to proximity of the radio frequency tag.
13. A method for identifying unauthorized use of a transducer which is detachably connectable with an imaging device, the method comprising:

- (a) comparing a code with a security code; and
- (b) generating a security signal in response to the comparison.

14. The method of Claim 13 wherein the code comprises a transducer identifier distinguishing the transducer from other transducers of a same type and manufacturer.

15. The method of Claim 13 wherein the code is stored on the transducer; further comprising:

- (c) providing the code external to the transducer for (a).

16. The method of Claim 13 further comprising:

- (c) storing a list of transducer identifiers in the imaging device, the security code comprising the list;
wherein (a) comprises searching for the code within the list.

17. The method of Claim 13 wherein (a) comprises identifying a mismatch of the code to the security information, and wherein (b) comprises generating a display of one of ownership, a warning and combinations thereof in response to the mismatch.

18. The method of Claim 13 wherein (a) comprises identifying a mismatch of the code to the security information, and wherein (b) comprises disabling use of the transducer with the imaging device.

19. The method of Claim 13 further comprising:

- (c) generating a request for the security information; and
- (d) inputting by a user the security information in response to the request;

wherein (b) comprises generating the security signal in response to a mismatch of the code and the security information.

20. The method of Claim 13 further comprising:
(c) connecting an adaptor between the transducer and the imaging device;
wherein (a) comprises comparing the code from the transducer with the security information from the adaptor; and
wherein (b) comprises generating the security signal in response to a mismatch of the security information and the transducer code.
21. The method of Claim 13 further comprising:
(c) wirelessly transmitting the code from the transducer to the imaging device;
wherein (a) comprises comparing in the imaging device.
22. The method of Claim 21 further comprising:
(d) ceasing driving of the transducer in response to proximity of the radio frequency tag with the imaging device.
23. A system for transducer identification, the system comprising:
a transducer; and
a wireless identifier tag connected with the transducer.
24. The system of Claim 23 wherein the transducer comprises a connector operable to releasably attach to an imaging device, and wherein the wireless identifier tag comprises a transponder having a code identifying a type of transducer.
25. The system of Claim 23 wherein the wireless identifier tag comprises a transmitter and a memory storing a code distinguishing the transducer from other transducers of a same type and manufacturer.
26. The system of Claim 25 further comprising:

an imaging device releasably connectable with the transducer, the imaging device having a receiver operable to receive the code from the transmitter, having an input operable to receive security information and having a processor operable to compare the code with the security information.

27. The system of Claim 23 wherein the wireless identifier tag comprises a transmitter and a memory storing a code.

28. The system of Claim 23 further comprising:

an imaging device having a processor operable to determine a threshold proximity of the transducer to the imaging device as a function of a signal from the wireless identifier tag, the imaging device operable to cease generation of transmit waveforms in response to the threshold proximity.

29. In a method for transducer identification wherein a transducer is electronically identified by an imaging device, the improvement comprising:

(a) transmitting identification information wirelessly from the transducer.

30. The improvement of Claim 29 wherein the transducer comprises a connector operable to releasably attach to the imaging device, and wherein (a) comprises transponding the identification information in response to a field generated by the imaging device, the identification information identifying a type of transducer.

31. The improvement of Claim 29 wherein (a) comprises transmitting a code distinguishing the transducer from other transducers of a same type and manufacturer.

32. The improvement of Claim 29 further comprising:

- (b) wirelessly receiving the identification information;
- (c) inputting by a user security information; and

(d) comparing the identification information with the security information.

33. The improvement of Claim 29 further comprising:

(b) determining a threshold proximity of the transducer to the imaging device as a function of wireless information; and

(c) ceasing generation of transmit waveforms in response to the threshold proximity.

34. In a method for electronically identifying transducer information, an improvement comprising:

(a) electronically distinguishing the transducer from other transducers of a same type and manufacturer.

35. The improvement of Claim 34 wherein (a) comprises wirelessly transmitting an identifier unique to the transducer.

36. The improvement of Claim 29 further comprising:

(b) receiving the identification information at a remote location other than the imaging device.

37. The improvement of Claim 29 further comprising:

(b) transmitting one of frequency of use, position, micro-code and combinations thereof.

38. The improvement of Claim 29 further comprising:

(b) performing asset management as a function of the identification information.

39. The improvement of Claim 29 further comprising:

(b) transmitting transducer position information.

40. The improvement of Claim 29 further comprising:

(b) generating a list of available transducers including the transducer as a function of wireless transmission of the identification information.

41. The improvement of Claim 29 further comprising:

(b) selecting one of imaging parameters, calibration parameters, configuration parameters and combinations thereof as a function of the wirelessly transmitted identification information.

42. The improvement of Claim 29 further comprising:

(b) detecting a variation in proximity as a function of a wireless signal strength; and

(c) activating use of the transducer by the imaging system in response to (b).

43. The improvement of Claim 29 further comprising:

(b) detecting an abnormal condition of the transducer; and

(c) wirelessly transmitting an occurrence of the abnormal condition.

44. The improvement of Claim 35 further comprising:

(b) storing the identifier in a patient record.

45. The improvement of Claim 29 further comprising:

(b) maintaining one of asset and inventory management records as a function of the identification information.